IN THE SPECIFICATION:

Please amend the specification as follows:

Page 1, under "NOTCH" please insert:

--This application is a continuation-in-part of PCT application PCT/GB97/63058, filed November 6, 1997 and designating the U.S. (published as WO 98/20142 on May 14, 1998), claiming priority from U.K. applications 9623236.8, 9715674.9, and 9719350.2, filed November 7, 1996, July 24, 1997 and September 11, 1997, respectively; and each of these applications, each document cited in each of these applications, and all documents cited in the following text, are hereby incorporated herein by reference.--

Page 12, line 3, after "physician" and before the period ("."), please insert:

--, for instance, taking into account such factors as the age, weight, sex, species, general health/condition of the patient, the condition to be treated, timing of treatments, the LD_{50} of the active ingredient involved in a suitable animal mode (e.g., rodent, mice), and other known factors; and such dosages can be on the order of micrograms to milligrams such as on the order of 0.5 to 500 micrograms, or another suitable amount, or can be computed from Examples herein, e.g., considering the average weight of a typical test animal (such as mice) and the dosages administered thereto (e.g., 100 micrograms), and thus the skilled artisan can determine dosages without undue experimentation--

Page 12, after line 8 and before line 9, please insert the following:

--Examples of compositions of the invention include liquid preparations for orifice, e.g., oral, nasal, anal, vaginal, peroral, intragastric, mucosal (e.g., perlingual, alveolar, gingival, olfactory or respiratory mucosa) etc., administration such as suspensions, syrups or elixirs; preparations for parenteral, subcutaneous, intradermal, intramuscular or intravenous administration (e.g., injectable administration), such as sterile suspensions or emulsions; and, preparations for topical administration, e.g., creams, gels, ointments and the like. Such

compositions may be in admixture with a suitable carrier, diluent, or excipient such as sterile water, physiological saline, glucose or the like. The compositions can also be lyophilized. The compositions can contain auxiliary substances such as wetting or emulsifying agents, pH buffering agents, gelling or viscosity enhancing additives, preservatives, flavoring agents, colors, and the like, depending upon the route of administration and the preparation desired. Standard texts, such as "REMINGTON'S PHARMACEUTICAL SCIENCE", 17th edition, 1985, incorporated herein by reference, may be consulted to prepare suitable preparations, without undue experimentation.

Compositions of the invention are conveniently provided as liquid preparations, e.g., isotonic aqueous solutions, suspensions, emulsions or viscous compositions which may be buffered to a selected pH. If digestive tract absorption is preferred, compositions of the invention can be in the "solid" form of pills, tablets, capsules, caplets and the like, including "solid" preparations which are time-released or which have a liquid filling, e.g., gelatin covered liquid, whereby the gelatin is dissolved in the stomach for delivery to the gut.

If nasal or respiratory (mucosal) administration is desired, compositions may be in a form and dispensed by a squeeze spray dispenser, pump dispenser or aerosol dispenser. Aerosols are usually under pressure by means of a hydrocarbon. Pump dispensers can preferably dispense a metered dose or, a dose having a particular particle size. "A self-pressurized packaging form with a permanently attached continuous or metering valve and designed to dispense products such as sprays, streams, gels, foams, lotions or gases" is a typical term for an "aerosol". An "aerosol" is also "small particles of a liquid or solid suspended in gas." Thus, liquids and/or solids can be in an aerosol form of the invention; and, the particle size thereof can be any suitable amount for absorption by mucosal, e.g., alimentary tract, lungs, nasal mucosa, and the like, such as having a majority of particles by weight, e.g., 90% by wt or greater such as 95% by wt or greater having an average diameter or size of about 10 μm - about 100 μm for nasal absorption, and a majority of particles, e.g., 90% by wt or greater such as 95% by wt or greater having a diameter or size less than about 10 μm, e.g., about 3- about 7 μm for absorption in the lungs; see, e.g., U.S. Patent No. 5,804,212 and documents cited therein, hereby incorporated herein by reference.

Compositions of the invention can contain pharmaceutically acceptable flavors and/or colors for rendering them more appealing, especially if they are administered orally. The

viscous compositions may be in the form of gels, lotions, ointments, creams and the like and will typically contain a sufficient amount of a thickening agent so that the viscosity is from about 2500 to 6500 cps, although more viscous compositions, even up to 10,000 cps may be employed. Viscous compositions have a viscosity preferably of 2500 to 5000 cps, since above that range they become more difficult to administer. However, above that range, the compositions can approach solid or gelatin forms which are then easily administered as a swallowed pill for oral ingestion.

Liquid preparations are normally easier to prepare than gels, other viscous compositions, and solid compositions. Additionally, liquid compositions are somewhat more convenient to administer, especially by injection or orally, to animals, children, particularly small children, and others who may have difficulty swallowing a pill, tablet, capsule or the like, or in multi-dose situations. Viscous compositions, on the other hand, can be formulated within the appropriate viscosity range to provide longer contact periods with mucosa, such as the lining of the stomach or nasal mucosa.

Obviously, the choice of suitable carriers and other additives will depend on the exact route of administration and the nature of the particular dosage form, e.g., liquid dosage form (e.g., whether the composition is to be formulated into a solution, a suspension, gel or another liquid form), or solid dosage form (e.g., whether the composition is to be formulated into a pill, tablet, capsule, caplet, time release form or liquid-filled form).

Solutions, suspensions and gels, normally contain a major amount of water (preferably purified water) in addition to the antigen, lipoprotein and optional adjuvant. Minor amounts of other ingredients such as pH adjusters (e.g., a base such as NaOH), emulsifiers or dispersing agents, buffering agents, preservatives, wetting agents, jelling agents, (e.g., methylcellulose), colors and/or flavors may also be present. The compositions can be isotonic, i.e., it can have the same osmotic pressure as blood and lacrimal fluid.

The desired isotonicity of the compositions of this invention may be accomplished using sodium chloride, or other pharmaceutically acceptable agents such as dextrose, boric acid, sodium tartrate, propylene glycol or other inorganic or organic solutes. Sodium chloride is preferred particularly for buffers containing sodium ions.

Viscosity of the compositions may be maintained at the selected level using a pharmaceutically acceptable thickening agent. Methylcellulose is preferred because it is readily

and economically available and is easy to work with. Other suitable thickening agents include, for example, xanthan gum, carboxymethyl cellulose, hydroxypropyl cellulose, carbomer, and the like. The preferred concentration of the thickener will depend upon the agent selected. The important point is to use an amount which will achieve the selected viscosity. Viscous compositions are normally prepared from solutions by the addition of such thickening agents.

A pharmaceutically acceptable preservative can be employed to increase the shelf-life of the compositions. Benzyl alcohol may be suitable, although a variety of preservatives including, for example, parabens, thimerosal, chlorobutanol, or benzalkonium chloride may also be employed. A suitable concentration of the preservative will be from 0.02% to 2% based on the total weight although there may be appreciable variation depending upon the agent selected.

Those skilled in the art will recognize that the components of the compositions must be selected to be chemically inert with respect to the active ingredient. This will present no problem to those skilled in chemical and pharmaceutical principles, or problems can be readily avoided by reference to standard texts or by simple experiments (not involving undue experimentation), from this disclosure and the documents cited herein.

In addition, compositions of the invention can be administered in conjunction with other therapy in accordance with this invention, or can be administered in conjunction with other therapies for the condition being treated, either simultaneously or sequentially; and, therapy can be administered in intervals suitable for treating the particular condition being treated, without undue experimentation, by the practitioner taking into consideration typical factors, such as those discussed herein.

The compositions of this invention are prepared by mixing the ingredients following generally accepted procedures. For example, the selected components may be simply mixed in a blender, or other standard device to produce a concentrated mixture which may then be adjusted to the final concentration and viscosity by the addition of water or thickening agent and possibly a buffer to control pH or an additional solute to control tonicity. Generally the pH may be from about 3 to 7.5. Compositions can be administered in dosages and by techniques well known to those skilled in the medical and veterinary arts taking into consideration such